SAMSUNG TECHWIN

# High Resolution Vandal Dome Camera

User Manual

SCV-2060

SAMSUNG

# High Resolution Vandal Dome Camera

User Manual

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Warranty
If the product does not operate properly in normal conditions, please let us know. Samsung Techwin will resolve the problem for free of charge. The warranty period is 3 years. However, the followings are excluded:

- If the system behaves abnormally because you run a program irrelevant to the system operation.
- Deteriorated performance or natural worn-out in process of time

Before operating the camera, confirm the camera model and correct input power voltage.
To help you understand this manual thoroughly, we'll introduce our model description.

■ SCV-2060 SERIES

- NTSC MODEL
  SCV-2060N
- PAL MODEL
  SCV-2060P

■ MODEL DESCRIPTION

- SCV-2060X

- SIGNAL SYSTEM
  N → NTSC MODEL
  P → PAL MODEL

# safety information

**CAUTION**

RISK OF ELECTRIC SHOCK.
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.

This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### WARNING

- To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.
- To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.

### WARNING

1. Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
3. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
4. Securely plug the power cord into the power receptacle. insecure connection may cause fire.
5. When installing the camera, fasten it securely and firmly. The fall of camera may cause personal injury.

6. Do not place conductive objects (e.g. screwdrivers, coins, metal parts, etc.) or containers filled with water on top of the camera. doing so may cause personal injury due to fire, electric shock, or falling objects.
7. Do not install the unit in humid, dusty, or sooty locations. doing so may cause fire or electric shock.
8. If any unusual smells or smoke come from the unit, stop using the product. in such case, immediately disconnect the power source and contact the service center. continued use in such a condition may cause fire or electric shock.
9. If this product fails to operate normally, contact the nearest service center. never disassemble or modify this product in any way. (samsung is not liable for problems caused by unauthorized modifications or attempted repair.)
10. When cleaning, do not spray water directly onto parts of the product. doing so may cause fire or electric shock.

## CAUTION

1. Do not drop objects on the product or apply strong shock to it. Keep away from a location subject to excessive vibrationor magnetic interference.
2. Do not install in a location subject to high temperature (over 50°C), low temperature (below -50°C), or high humidity. Doing so may cause fire or electric shock.
3. If you want to relocate the already installed product, be sure to turn off the power and then move or reinstall it.
4. Remove the power plug from the outlet when then there is a lightning. Neglecting to do so may cause fire or damage to the product.
5. Keep out of direct sunlight and heat radiation sources. It may cause fire.
6. Install it in a place with good ventilation.
7. Avoid aiming the camera directly towards extremely bright objects such as sun, as this may damage the CCD image sensor.
8. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
9. The Mains plug is used as a disconnect device and shall stay readily operable at any time.
10. Do not expose the camera to radioactivity. Radioactivity exposure may damage the CCD.

# safety information

## FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions :

1) This device may not cause harmful interference, and
2) This device must accept any interference received including interference that may cause undesired operation.

### CAUTION

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### IC Compliance Notice

This Class A digital apparatus meets all requirements of the Canadian Interference.-Causing Equipment Regulations of ICES-003.

### Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

### Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems.)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

# important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.

13. Unplug this apparatus when a card is used. Use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as powersupply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus

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## FEATURES

- **IP66 Approved/Dust and Rain Resistant**
  With dust and rain resistant design, the camera can be installed outside under building eaves or places that are exposed to the dust and rain.
- **High Resolution**
  Adopting high-resolution CCD of 410k (NTSC) / 470k (PAL) pixels provides clear and sharp image.
- **Excellent Sensitivity**
  The built-in high sensitivity COLOR CCD produces a clear image.
- **SSNR3 (Samsung Super Noise Reduction) Function**
  The high-performance W-V DSP chip effectively removes low-light gain noise and afterimage to provide clear images even in dark environments.
- **DAY&NIGHT(ICR)**
  This camera has a function that automatically selects the mode that is appropriate for daytime or night-time conditions.
- **Motion Detection**
  Since the camera detects motion without any additional external sensor, you can monitor activity more efficient.
- **SSDR (Samsung Super Dynamic Range)**
  For images with high contrast between bright and dark areas from difficult lighting conditions such as backlighting, this camera selectively illuminates darker areas while retaining the same light level for brighter areas to even out the overall brightness.
- **DIS (Digital Image Stabilizer)**
  Digital image stabilization compensates camera shakings for enhanced image capture.
- **Communication**
  **Coaxial communication methods are supported.**
  **- Protocol : Pelco Coaxitron**
- **Miscellaneous Functions**
  HLC(High Light Compensation), SENS-UP, FLIP (H/V-REV), D-ZOOM, SHARPNESS and PRIVACY functions are provided.
- **OSD**
  The camera's OSD is complimented by 18 languages.
  - NTSC : Korean, English, French, Spanish, Japanese, Portuguese, Taiwanese
  - PAL : English, Chinese, German, Italian, French, Spanish, Russian, Czech, Polish, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese

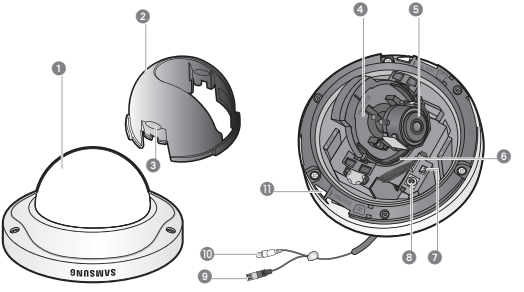
## WHAT'S INCLUDED

Check if the following items are included in the product package.

| | | |
|---|---|---|
| | | |
| Main Body | Instruction Manual | Quick Set-up Guide |
| | | |
| Quick Install Guide | Template | Plastic Anchor (4 EA) |
| | | |
| L-wrench | Fixing Screws (4 EA) | Tapping Screws (4 EA) |
| | | |
| Cable for test monitor connection | | |

## COMPONENT NAMES AND FUNCTIONS

### FRONT

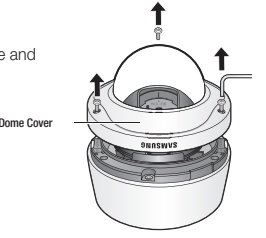



1. **Dome Cover**
2. **Inner cover**
3. **Wing locker**
4. **Rotate Base :** Control rotating angle of camera.
5. **Vari-focal Lens Module**
6. **Pan Base** : Control panning angle of camera.
7. **Video Output Terminal to Monitor**
8. **Function Setup switch :** Display the menu on the screen and move the cursor to four directions to confirm status or changing a selected item.
9. **Power Input Terminal**
10. **Video Output Jack**
11. **Lock releaser**

## INSTALLATION

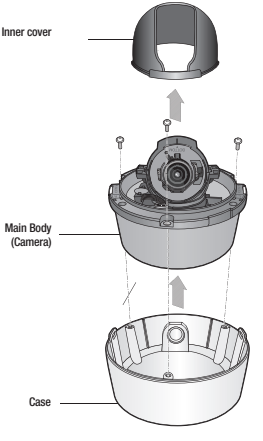
### DISASSEMBLING

**1.** Using the L-wrench provided, loosen 3 screws by turning them counterclockwise and separate the dome cover.




**2.** Lift up the inner cover while gently pressing both ends to separate it from the unit.

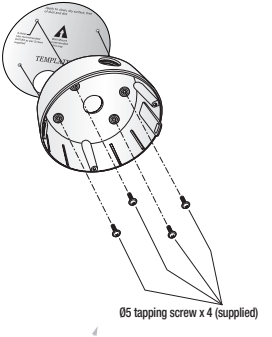
**3.** Loosen 3 screws by turning them counterclockwise, press both left and right lock releases inwards (in arrow direction) to unlock the stopper, and then separate the camera from the case.



## INSTALLING THE CAMERA ON A CEILING OR WALL

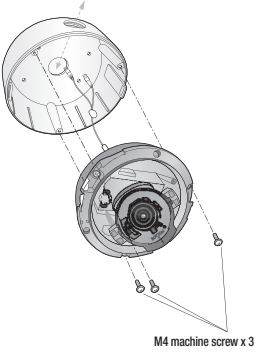
1. Affix the mounting template(supplied) to the mounting surface.

2. Drill holes (diameter 5mm, more than 35mm deep) on the ceiling by matching to the holes on the case bed, and insert plastic anchors (HUD 5) fully into the holes. Fix the case bed on the ceiling by using Tapping Screws (TH M4xL30). (4 places)




3. Connect power and video cables and arrange cable running not to damage or squeeze them, and assemble the camera unit in the reverse way.

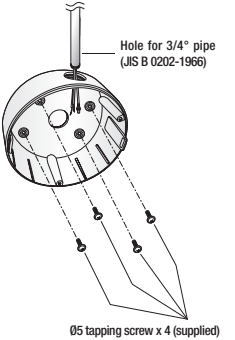
4. Pass the power and BNC cable through the hole you want to pass them when mounting the main body on the mounting bracket.




5. Secure the camera on its mounting bracket with the four screws.

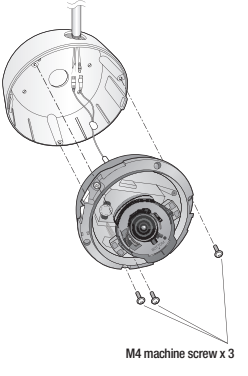
## INSTALLING THE CAMERA ON A CEILING OR WALL WITH PIPELINE

**1.** Secure the mounting bracket on the place you want to mount it after combining the mounting bracket with the pipeline.



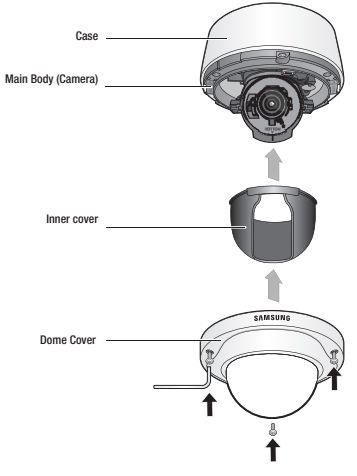

**2.** Connect power input and video output cables with the each cable from pipeline.

**3.** Secure the main body on mounting bracket.

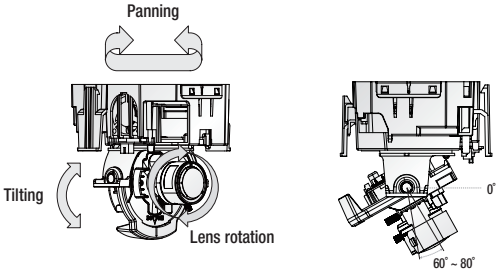


## REINSTALL THE DOME COVER TO THE MAIN BODY

1. Adjust the lens in a desired direction.
2. Secure the inner cover to the main unit.
3. Assemble the Dome Cover.
   For waterproof purpose, fix and secure the bolt using L-wrench provided.



## ADJUSTING THE MONITORING DIRECTION OF THE CAMERA




1) You can adjust the camera direction only when the camera is fixed on the ceiling. You can adjust the camera to point in any direction by using the pan, Tilt mechanism.

- Adjust the panning angle so that the camera settles in the right horizontal position.
- Adjust the tilting angle so that the camera settles in the right vertical position.
- Control rotating angle of camera.

2) Methods of adjustment

- The case of wall installation

1. After mounting the camera on the wall, adjust the panning angle so that the camera faces a desired direction when tilting.
2. Adjust the Rotate position to fit the video to the screen borders.
3. Then, adjust the tilting angle so that the camera faces the monitoring direction.

• The case of ceiling installation

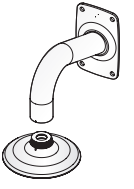
1. After mounting the camera on the ceiling, adjust the panning angle according to the monitoring direction. You should adjust the panning angle lest that the video be displayed upside down on the monitor.
2. Adjust the Rotate position to fit the video to the screen borders.
3. Then, adjust the tilting angle so that the camera faces the monitoring direction.

▪ For smoother Rotate adjustment, set the Tilt position between 60˚ ~ 80˚.

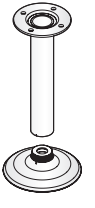
## ADJUSTING THE MONITORING DIRECTION OF THE CAMERA

For your easier installation, you can purchase appropriate optional accessories.

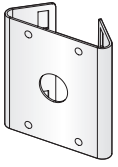
1) WALL MOUNT ADAPTOR(SCX-300WM)/HANGING MOUNT(SCX-300HM) This adaptor is used when installing the dome camera onto a wall.



2) EILING MOUNT ADAPTOR(SCX-300CM)/ HANGING MOUNT(SCX-300HM) This adaptor is used when installing the dome camera on a concrete ceiling.



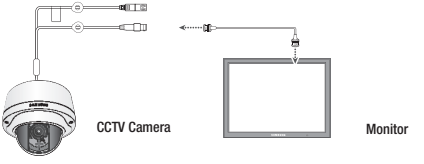
3) POLE MOUNT ADAPTOR(SCX-300PM) This is an adaptor for WALL MOUNT ADAPTOR (SCX-300WM) installation on a pole whose diameter is bigger than 80mm.



4) CORNER MOUNT ADAPTOR (SCX-300KM) This is an adaptor for WALL MOUNT ADAPTOR (SCX-300WM) installation on the corner of wall joint.

## CONNECTING TO MONITOR

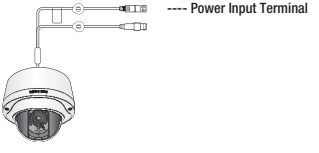
Connect the VIDEO-OUT jack to the VIDEO-IN jack of monitor.




- As the connecting method varies with the instruments, refer to the manual supplied with the instrument.
- If necessary, you can connect the monitor to the REMOTE jack on the back of your camera.
- Only connect the cable when the power is turned off.

## CONNECTING TO POWER

Connect the adaptor to the power input terminal as shown in the figure below.
Output of the adaptor should be either one of AC 24 V, 1.5 A or DC 12 V, 1.0 A. Note that using DC 12 V may cause lower heater temperature.




When the resistance value of copper wire is at [20°C(68°F)]

| Copper wire size (AWG) | #24 (0.22mm2) | #22 (0.33mm2) | #20 (0.52mm2) | #18 (0.83mm2) |
|---|---|---|---|---|
| Resistance (Ω/m) | 0.078 | 0.050 | 0.030 | 0.018 |
| Voltage Drop (V/m) | 0.028 | 0.018 | 0.011 | 0.006 |

- As shown in the table above, voltage decreases as the wire gets longer. Therefore use of an excessively long adaptor output line for connection to the camera may affect the performance of the camera.

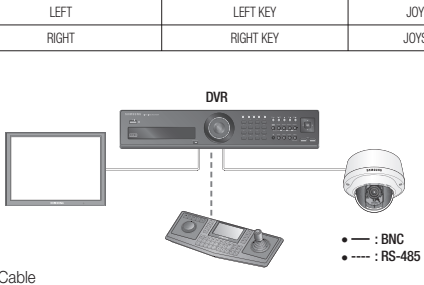
* There may be some deviation in voltage drop depending on the type of wire and the manufacturer.

- Be sure to connect power only after all the installation is complete.
- Note that AC / DC adaptor is not supplied with camera.
- Ground should be connected to the GND terminal.

## USING COAXIAL COMMUNICATIONS

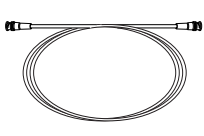
- Coaxial Communications System
- OSD Control method

| CAMERA | DVR | CONTROLLER |
|---|---|---|
| SET | MENU/ENTER | OSD KEY |
| UP | UP KEY | JOYSTICK UP |
| DOWN | DOWN KEY | JOYSTICK DOWN |
| LEFT | LEFT KEY | JOYSTICK LEFT |
| RIGHT | RIGHT KEY | JOYSTICK RIGHT |




- Video Cable

  The camera's video output port is connected to the monitor with a BNC coaxial cable, shown below : If the distance between the camera and the monitor exceeds the recommended maximum, please use an auxiliary video amp.



| Distance | Recommended Cable Specification |
|---|---|
| 300m | 3C2V(RG-59/U) |
| 450m | 5C2V(RG-6/U) |
| 600m | 7C2V(RG-11/U) |

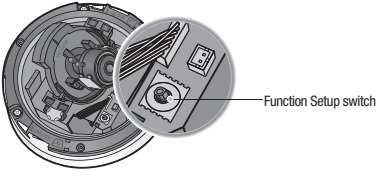
- It is recommended that pure copper coax cable is used and not copper coated steel, as this will cause issues with the communication over the coaxial cable.

## MENU CONFIGURATION

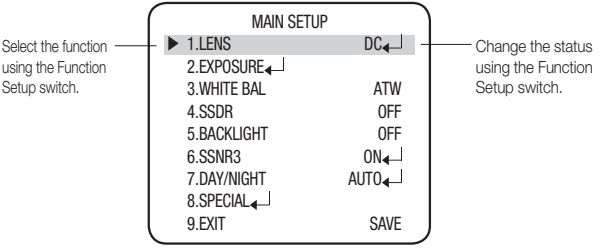
| MAIN SETUP | | | |
|---|---|---|---|
| LENS | ● DC | | |
| EXPOSURE | ● BRIGHTNESS<br>● SENS-UP | ● SHUTTER<br>● RETURN | ● AGC |
| WHITE BAL | ● ATW<br>● MANUAL | ● OUTDOOR<br>● AWC→SET | ● INDOOR |
| SSDR | ● OFF | ● ON | |
| BACKLIGHT | ● OFF | ● BLC | ● HLC |
| SSNR3 | ● ON | ● OFF | |
| DAY/NIGHT | ● AUTO | ● COLOR | ● B/W |
| SPECIAL | ● IMAGE ADJ<br>● SYNC<br>● DIS | ● MONITOR<br>● MOTION DET<br>● LANGUAGE | ● CAM TITLE<br>● PRIVACY<br>● RETURN |
| EXIT | ● SAVE | ● NOT SAVE | ● RESET |

## MENU SETUP

Use the Function Setup switch within the camera.




1. Press the Function Setup switch.
   - Main setup menu is displayed on the monitor screen.



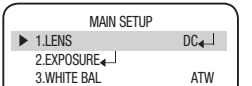

2. Select a desired function using the Function Setup switch.
   - Place the cursor over a desired item.
3. Set up a selected item by using the Function Setup switch.
4. To finish the setting, select 'EXIT' and press the Function Setup switch.

- An item with the ↵ icon also has sub menus. To select a sub menu, select an item with the icon and press the Function Setup switch.
- An item with the --- icon is unavailable due to function settings.

## LENS

Using this function, you can control the screen brightness.

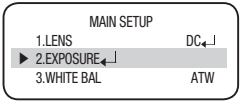
1. When the SETUP menu screen is displayed, select 'LENS' by using the Function Setup switch so that the arrow indicates 'LENS'.
2. The Lens mode has sub menu site as listed below.



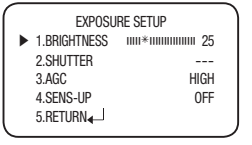

- BRIGHTNESS : Adjusts the video brightness.
- FOCUS ADJ : To adjust the lens focus correctly, you must activate the Focus Settings mode.
  To activate the Focus Settings mode, adjust the lens focus, and then deactivate the settings mode.
  You can adjust the shutter value of ESC shutter mode.

## EXPOSURE

1. When the SETUP menu screen is displayed, select 'EXPOSURE' by using the Function Setup switch so that the arrow indicates 'EXPOSURE'.




2. Select a desired mode using the Function Setup switch.




- **BRIGHTNESS** : Adjusts the video brightness.
- **SHUTTER** : You can select the shutter.
  - --- : Shutter speed is fixed at 1/60 sec (1/50 sec).
  - ESC : Select this to control the shutter speed automatically. If ESC is selected, the shutter speed is automatically controlled depending on the ambient illumination of the subject.
  - MANUAL :You can control shutter speed manually. (NTSC MODEL - 1/60sec~1/120,000sec, PAL MODEL - 1/50sec~1/120,000sec)
  - A.FLK :Select this when you experience picture flicker, this happen when there is a clash with the installed lighting frequency.

⚠
- Set the shutter mode to --- if color rolling occurs.
- When the SHUTTER is set to ESC after selecting the Internal Synchronization Type, the picture may become unstable if the camera faces a bright fluorescent light. Therefore, take care when choosing the installation position.
- When the SHUTTER is set to MANUAL or A.FLK mode, SENS-UP will be disabled.

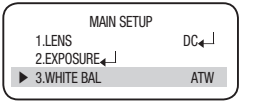
- **AGC (AUTO GAIN CONTROL)** : The higher the gain level, the brighter the screen - but the greater the noise.
  - HIGH : Allows automatic gain control from 5.3dB to 37dB.
  - OFF : Deactivates the AGC function.
  - LOW : Allows automatic gain control from 5.3dB to 32dB.
- **SENS-UP** : When it is night or dark, the camera automatically detects the light level and maintains a clear picture if this mode is activated.
  - OFF : Deactivates the SENS-UP function.
  - AUTO : Activates the SENS-UP function.
- **RETURN** : Select this to save the changes in the EXPOSURE menu and return to the SETUP menu.

- If you set the Function Setup switch to 'AUTO' mode, You can adjust the brightness by increasing or decreasing the shutter speed. (x2 ~ x512)
- Note that the higher the zoom level, the brighter the screen, but the more likely it is that an after-image will appear.
- Although Noise, Spots and Whitish symptoms may occur in SENS-UP operation when the zoom level is increased, this is normal.

## WHITE BAL (WHITE BALANCE)

Use the White Balance function to adjust the screen color.

1. When the SETUP menu screen is displayed, select 'White Bal' by using the Function Setup switch so that the arrow indicates 'White Bal'.
2. Select a desired mode using the Function Setup switch.




※ Select one of the following 5 modes, as appropriate for your purpose.

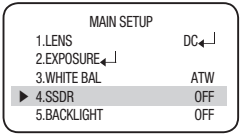
- **ATW** : Select this when the color temperature is between 1,700°K and 11,000°K.
- **OUTDOOR** : Select this when the color temperature is between 1,700°K and 11,000°K. (sodium light inclusion)
  Select this when the color temperature of environment surrounding the subject is out of the control range (e.g. clear sky, or sunset)
- **INDOOR** : Select this when the color temperature is between 4,500°K and 8,500°K.
- **MANUAL** : Select this to fine-tune White Balance manually. Set White Balance first by using the ATW or AWC mode. After that switch to MANUAL mode, fine-tune the White Balance and the Function Setup switch.
- **AWC→SET** : To find the optimal luminance level for the current environment, point the camera towards a sheet of white paper and press the Function Setup switch. If the environment changes, readjust it.

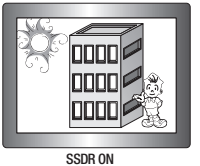
- White Balance may not work properly under the following conditions. In this case select the OUTDOOR mode.
  1. When the ambient illumination of the subject is dim.
  2. If the camera is directed towards a fluorescent light or is installed in a place where illumination changes dramatically, the White Balance operation may become unstable.

## SSDR (SAMSUNG SUPER DYNAMIC RANGE)

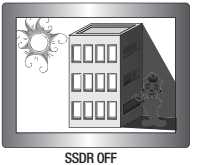
SSDR illuminates darker areas of an image while retaining the same light level for brighter areas to even out the overall brightness of images with high contrast between bright and dark areas.

1. When the SETUP menu screen is displayed, select 'SSDR' by using the Function Setup switch so that the arrow indicates 'SSDR'.
2. Use the Function Setup switch to change the SSDR level in the sub menu according to the contrast between bright and dark areas.



SSDR ON



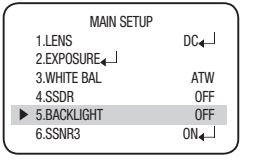
SSDR OFF



## BACKLIGHT

Designed to provide clear separation of the subject from the background even under a severe backlight condition.

1. When the SETUP menu screen is displayed, select 'BACKLIGHT' by using the Function Setup switch so that the arrow indicates 'BACKLIGHT'.
2. Select a desired mode using the Function Setup switch depending on the camera purpose.

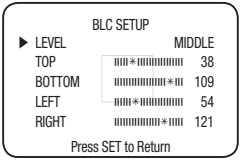



- **OFF** : Not being used
- **BLC**: Enables a user to select a desired area on a picture and view that area more clearly.
  - LEVEL : Adjusts the brightness level of a monitoring area.
  - TOP/BOTTOM/LEFT/RIGHT : Adjust the area to be enhanced.

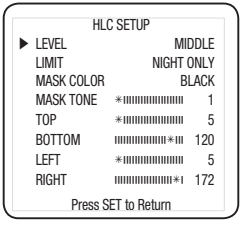
- **HLC (High Light Compensation) :**
  If the scene contains extremely bright light areas such as; from car headlight, the light can mask out much of the on-screen detail.
  - LEVEL : Adjusts the brightness level of a monitoring area.
  - LIMIT : Enable to change the operating condition.
  - MASK COLOR/TONE : Change the color / brightness of the masking area. (Black, Red, Blue, Cyan, Magenta)
  - TOP/BOTTOM/LEFT/RIGHT : Adjust the area to be enhanced.

**3.** Select a desired mode using the Function Setup switch.

- Select 'BLC' to adjust the area to be enhanced then adjust the level.




- HLC : Enable the user to change the level, limit, mask color/tone and area.

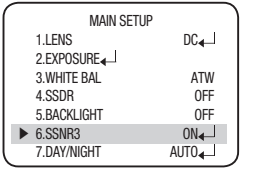



- Because there can be a difference in the effectiveness of HLC according to the amount of light area in the screen, optimize the installation angle for the best HLC performance.
- When dark, the HLC is only activated when a bright light exceeding a specific size. (In NIGHT ONLY mode.)
- The HLC is not activated in day light or when bright light is not present at night. (In NIGHT ONLY mode.)
- When HLC function is used, D-ZOOM and DIS functions are not activated.

## SSNR3

This function reduces the background noise in a low luminance environments.

1. When the SETUP menu screen is displayed, select 'SSNR3' by using the Function Setup switch so that the arrow indicates 'SSNR3'.
2. Select a desired mode using the Function Setup switch.
   - **ON :** Activates SSNR3 so that noise is reduced.
   - **OFF** : Deactivates SSNR3. Noise is not reduced.
3. Set the SSNR3 mode to 'ON' and press the Function Setup switch. Then you can adjust the noise reduction level.

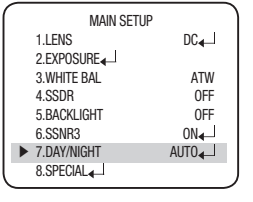



- You cannot set the SSNR3 to 'ON' or 'OFF' when the AGC mode of the 'EXPOSURE' menu is 'OFF'.
- When adjusting the noise reduction level in the SSNR3 mode, remember that the higher the level set, the more the noise level will be reduced, as will the brightness of the image.

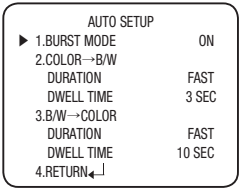
## DAY/NIGHT

You can display pictures in color or in black and white.

1. When the SETUP menu screen is displayed, select 'DAY/NIGHT' by using the Function Setup switch so that the arrow indicates 'DAY/NIGHT'.
2. Select a desired mode using the Function Setup switch according to the picture display you want.
   - **AUTO** : The mode is switched to 'Color' in a normal environment, but switches to 'B/W' mode when ambient illumination is low. To set up the switching time for AUTO mode, press the Function Setup switch. You can turn on or off the burst signal on B/W mode.



- BURST MODE : You can turn on or off the burst signal on B/W mode.
- DURATION : You can select the day/night switching point.
- DWELL TIME : You can select day/night switching delay time from.
  →3s, 5s, 7s, 10s, 15s, 20s, 30s, 40s, 60s




| | Color → B/W | B/W → Color |
|---|---|---|
| Fast | 2.5 lux | 5 lux |
| Slow | 1 lux | 10 lux |

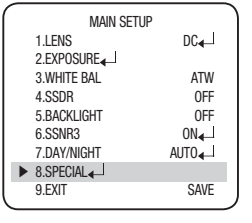
※ The day/night switching point of the camera can be adjusted.

- **COLOR** : The picture is always displayed in color.
- **B/W** : The picture is always displayed in black and white.
  You can turn on or off the burst signal on B/W mode.

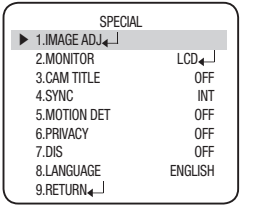
▪ When AGC in the EXPOSURE menu is 'OFF', '---' mode operates as selecting 'COLOR' mode and 'AUTO' mode cannot be selected.

## SPECIAL

1. When the SETUP menu screen is displayed, select 'SPECIAL' by using the Function Setup switch so that the arrow indicates 'SPECIAL'.



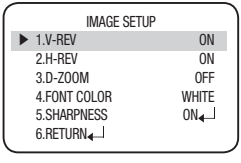
**2.** Select a desired mode using the Function Setup switch.




- **IMAGE ADJ :**

  1) When the SPECIAL menu screen is displayed, select 'IMAGE ADJ' by using the Function Setup switch so that the arrow indicates 'IMAGE ADJ'.

  2) Select a desired mode using the Function Setup switch.



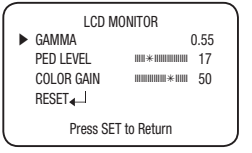

  - V-REV : You can flip the picture vertically on the screen.
  - H-REV : You can flip the picture horizontally on the screen.
  - D-ZOOM : You can use a digital zoom of x1 ~ x16.
  - FONT COLOR : You can change the OSD font color. (White, Yellow, Green, Red, Blue)
  - SHARPNESS : As you increase this value, the picture outline becomes stronger and clearer. Adjust this value appropriately depending on the sharpness of the picture.
  - RETURN : Select this to save the settings for the IMAGE ADJ menu and to return to the SPECIAL menu.

▪ When the V-REV or H-REV mode is enabled, the text on the screen does not flip.

▪ If you increase the SHARPNESS level too high, the picture may become distorted or noise may appear.

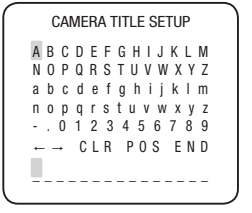
- **Monitor** : Please change the settings value of video appropriate to your monitor.
  - LCD : Please select this menu item when using an LCD monitor. You can change the gamma, PED level and color gain in the sub menus.

- CRT : Please select this menu item when using a CRT monitor. You can change the PED level, color gain in the sub menus.
- USER : Please use this menu item when using a monitor other than standard ones. You can change the gamma, PED level and color gain in the sub menus.




- **CAM TITLE** : If you enter a title, the title will appear on the monitor.

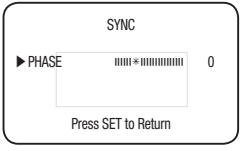
1. If the SPECIAL menu screen is displayed, use the Function Setup switch so that the arrow indicates 'CAM TITLE'.
2. Set it to 'ON' by using the Function Setup switch.
3. Press the Function Setup switch.
4. Use the Function Setup switch to move to a desired letter and select the letter by pressing the Function Setup switch. Repeat this to enter multiple letters. You can enter up to 15 letters.




5. Enter a title, move the cursor to 'POS' and press the Function Setup switch. The entered title appears on the screen. Select the position to display the title on the screen by using the Function Setup switch and press the Function Setup switch. When the position is determined, select 'END' and press the Function Setup switch to return to the SPECIAL menu.

- When the CAM TITLE menu is 'OFF', no title will be displayed on the monitor screen even if you enter one.
- Only English is available in the mode.
- If you move the cursor to CLR and press the Function Setup switch, all the letters are deleted. To edit a letter, change the cursor to the bottom left arrow and press the Function Setup switch. Move the cursor over the letter to be edited, move the cursor to the letter to be inserted and then press the Function Setup switch.

- **SYNC** : In areas where the supply is at 60Hz(NTSC), 50Hz(PAL) frequency, you can synchronize the output phase of multiple cameras using the power synchronization function (Line-Lock) without using a synchronization signal generator.




  - INT : Internal Synchronization Type
  - L/L : Power Synchronization Type, Line-lock

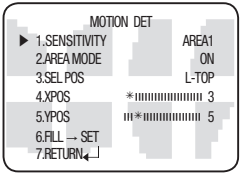
1. Set up the mode using the Function Setup switch.
2. You can select a desired phase from 0 to 359 when select 'phase'.

- When using AC power at 60Hz(NTSC), 50Hz(PAL) frequency, you can use the L/L type synchronization.
- When the power is DC 12V, the SYNC menu is fixed to the 'INT' mode.

- **MOTION DET** :

Allows effective monitoring by displaying "MOTION DET" message on the screen whenever a motion is detected, for all 8 monitored split screens.

1. When the SPECIAL menu screen is displayed, press the Function Setup switch so that the arrow indicates'MOTION DET'.

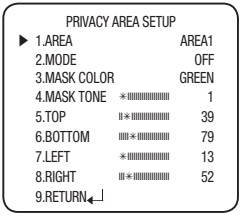



2. Set up the mode using the Function Setup switch.

  - SENSITIVITY : You can select up to 8 MD areas. When SENSITIVITY number is high, motion detection sensitivity is increased to recognize even small movement.
  - AREA MODE : Determines whether to use the MD area selected in SENSITIVITY.
  - SEL POS : Determines which of the 4 vertices of each MD area is to be used.
  - XPOS : Determines the coordinate of the horizontal axis for SEL POS.
  - YPOS : Determines the coordinate of the vertical axis for SEL POS.
  - FILL → SET : Fills in a selected MD area. The color of filling is sequentially selected as brown, orange, blue, cyan, green, yellow, magenta and red.
  - RETURN : Select this to save the MOTION DET menu settings and return to the SPECIAL menu.

- **PRIVACY** : Mask an area you want to hide on the screen.
  1. When the SPECIAL menu screen is displayed, press the Function Setup switch so that the arrow indicates 'PRIVACY'.
  2. Set up the mode using the Function Setup switch.

  - AREA : You can select up to 12 PRIVACY areas.
  - MODE : Determines whether to use the area selected in the AREA.




  - MASK COLOR : Determine area color. You can select Green, Red, Blue, Black, White, Gray.
  - MASK TONE : Adjust the brightness of MASK COLOR.
  - TOP/BOTTOM/LEFT/RIGHT : Adjust the size and position of the selected area.
  - RETURN : Select this to save the PRIVACY menu settings and return to the SPECIAL menu.

- **DIS (Digital Image Stabilizer)** :Digital image stabilization compensates camera shakings for enhanced image capture.

  - As the DIS function uses the digital zoom, the camera's resolution will decrease.
  - DIS doesn't operate when background illumination is too low.
  - DIS doesn't operate when object pattern is monotonic as like sky or white wall.

- **LANGUAGE** : You can select the menu language according to your requirements.
  - NTSC : Korean, English, French, Spanish, Japanese, Portuguese, Taiwanese
  - PAL : English, Chinese, German, Italian, French, Spanish, Russian, Czech, Polish, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese

- **RETURN** : Select this to save the SPECIAL menu settings and return to the MAIN SETUP menu.

## EXIT

Select a desired EXIT mode using the Function Setup switch depending on the camera purpose.

- **SAVE** : Save the current settings and exit the MAIN SETUP menu.
- **NOT SAVE** : Do not save the current settings and exit the MAIN SETUP menu.
- **RESET** : Resets the camera settings to the factory defaults.
  Language and Monitor settings are not initialized.

## TROUBLESHOOTING

If there are problems in operation, please refer to the items below. If the problem persists, please contact the agent you purchased this product from.

| PROBLEM | SOLUTION |
|---|---|
| Nothing appears on the screen. | ▶ Check that the power cord and line connection between the camera and monitor are properly connected.<br>▶ Check that you have properly connected BNC cable to the camera. |
| The image on the screen is dim. | ▶ Is lens stained with dirt? Clean your lens with soft, clean cloth.<br>▶ Set the monitor or DVR to the proper condition.<br>▶ If the camera is exposed to very strong light, change the camera position. |
| The image on the screen is dark. | ▶ Adjust the contrast feature of the monitor or DVR.<br>▶ If you have an intermediate device, set the 75Ω / Hi-z properly. |
| The camera is not working properly, and the surface of the camera is hot. | ▶ Check that you have properly connected the camera to an appropriate power source. |
| The DAY/NIGHT menu does not work. | ▶ Check that AGC of EXPOSURE SETUP menu is 'OFF'. |
| The SENS-UP function does not work. | ▶ Check that AGC of EXPOSURE SETUP menu is 'OFF'.<br>▶ Check that SHUTTER of EXPOSURE SETUP menu is 'A.FLK' or 'MANUAL'. |
| Color is not correct. | ▶ Check the setting of WHITE BAL SETUP menu . |
| The screen flickers continually. | ▶ Ensure the camera is not pointing towards the sun. |
| When coaxial communication is not available: | ▶ Make sure that the camera and monitor are installed within the recommended distance.<br>▶ Use the video amplifier equivalent to coaxitron if the recommended installation distance is exceeded. |
| The camera is out of focus. | ▶ Check that you have properly adjusted the zoom / focus adjustment lever of lens. |

## SPECIFICATIONS

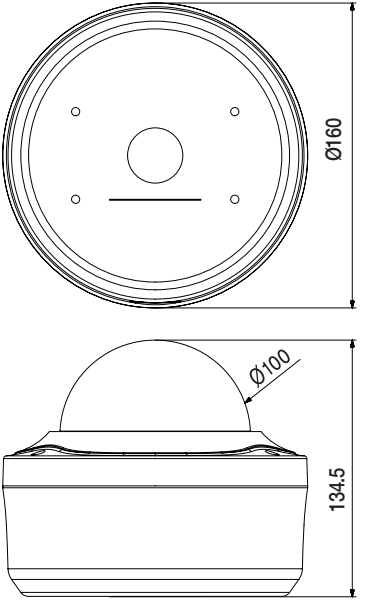
| | SCV-2060N | SCV-2060P |
|---|---|---|
| **VIDEO** | | |
| Imaging Device | 1/3" Super HAD CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | 2 : 1 Interlace | |
| Synchronization | Internal/Line-lock | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H : 15.625KHz / V : 50Hz |
| Horizontal Resolution | Color : 600 TV lines, B/W : 700TV lines | |
| Min. Illumination | Color : 0.15Lux (50IRE@F1.2), 0.0003Lux(Sens-up, x512)<br>B/W : 0.001Lux(50IRE@F1.2), 0.000002Lux(Sens-up, x512) | |
| S / N Ratio | 52dB (AGC off, Weight on) | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| **Lens Type** | | |
| Focal Length (Zoom Ratio) | 2.5 ~ 6mm (2.4x) | |
| Max. Aperture Ratio | 1:1.2(Wide) ~ 1.7(Tele) | |
| Angular Field of View | H: 103.4(Wide) ~ 46.6(Tele) / V: 77.6(Wide) ~ 35.1(Tele) | |
| Lens Type | DC Auto Iris | |
| Mount Type | Board Type | |
| **Pan / Tilt** | | |
| Pan Range | 0° ~ 355° | |
| Tilt Range | 0° ~ 90° | |
| Rotate Range | 0° ~ 355° | |
| **Operational** | | |
| On Screen Display | Multi-language Support by Coaxial Cable<br>English, Japanese, Spanish, French, Portuguese, Taiwanese, Korean | Multi-language Support by Coaxial Cable<br>English, French, German, Spanish, Italian, Chinese, Russian, Polish, Czech, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese |

# specifications

| | SCV-2060N | SCV-2060P |
|---|---|---|
| Camera Title | Off / On (Displayed 15 characters) | |
| Day & Night | Auto (ICR) / Color / B/W | |
| Backlight Compensation | BLC / HLC / Off | |
| Contrast Enhancement | SSDR ( Off/On ) | |
| Digital Noise Reduction | SSNR Ⅲ (Off / On) | |
| Digital Image Stabilization | Off / On | |
| Motion Detection | Off / On (8 programmable zones) | |
| Privacy Masking | Off / On (12 programmable zones) | |
| Sens-up (Frame Integration) | 2x ~ 512x | |
| Gain Control | Off / Low / High | |
| White Balance | ATW / Outdoor / Indoor / Manual / AWC (1,700K° ~ 11,000K°) | |
| Electronic Shutter Speed | 1/60 ~ 1/120,000 sec | 1/50 ~ 1/120,000 sec |
| Digital Zoom | Off / On (1x ~ 16x) | |
| Reverse | H-Rev ( Off/On ), V-Rev ( Off/On ) | |
| Communication | Coaxial Control ( SPC-300 Compatible ) | |
| Protocol | Coax : Pelco-C ( Coaxitron ) | |
| **Environmental** | | |
| Operating Temperature / Humidity | -50°C ~ +50°C (+14°F ~ +122°F) / Less than 90% RH | |
| Ingress Protection | IP66 | |
| **Electrical** | | |
| Input Voltage | Dual ( 24VAC±10% & 12VDC±10% ), Built-in Fan/Heater (24VAC±10%) | |
| Power Consumption | Max. 3.8W / Max. 7.8W ( Fan & Heater On ) | |
| **Mechanical** | | |
| Color / Material | Light Gray, Aluminum, Plastic ( Dome Cover : Clear ) | |
| Dimension (WxH) | Ø160 x 134.5mm | |
| Weight | 1.28Kg | |

※ This specification can be changed without notice for performance improvement of product.

## DIMENSIONS



# DECLARATION OF CONFORMITY

| | |
|---|---|
| Application of Council Directive(s) | 2004 / 108 / EC |
| Manufacturer's Name | SAMSUNG TECHWIN CO., LTD |
| Manufacturer's Address | SAMSUNG TECHWIN CO., LTD |
| | 42, SUNGJU-DONG CHANGWON-CITY, |
| | KYUNGNAM, KOREA, 641-716 |
| European Representative Name | |
| European Representative Address | |
| Equipment Type/Environment | CCTV Camera |
| Model Name | SCV-2060 |
| Beginning Serial NO. | C5CX6V3Z300001X |
| Conformance to | EN 55022 : 2006 |
| | EN 50130-4 : 2003 |

We, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s).

| Manufacturer | SAMSUNG TECHWIN CO., LTD | Legal Representative in Europe |
|---|---|---|
| Signature | BJ Gu | Signature |
| Full Name | BONJENG GU | Full Name |
| Position | QUALITY CONTROL MANAGER | Position |
| Place | CHANGWON, KOREA | Place |

MEMO

## SALES NETWORK

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